Walter, Gilbert G.

Pointwise convergence of wavelet expansions. (English) Zbl 0821.42019

J. Approximation Theory 80, No. 1, 108-118 (1995).

The author examines the pointwise convergence of orthogonal wavelet expansions. Since the reproducing kernels of the associated multiresolution analysis form a quasi-positive delta sequence the author establishes pointwise uniform convergence on compact sets for continuous functions. This result is extended to distributions at points of continuity.

The article is well written highlightning the main idea in a very comprehensible manner.

Reviewer: P.Maaß (Potsdam)

MSC:

42C40 Nontrigonometric harmonic analysis involving wavelets and other special systems

Keywords:

pointwise convergence; orthogonal wavelet expansions; multiresolution analysis; delta sequence

Full Text: DOI